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09/611,877	07/07/2000	Pawan Goyal	4461	7399

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EXAMINER

CHANG, SUNRAY

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 02/04/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/611,877

Applicant(s)

GOYAL ET AL.

Examiner

Sunray Chang

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2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1-3 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,5-9  
10 sheets
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "virtual private server" and "virtual private server identifier" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "virtual private server", "virtual private server identifier" and "additional processes" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1 – 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda (U.S. Patent No. 5,572,680 and Ikeda hereinafter).

6. Regarding independent claims 1 and 18, Ikeda teaches for each virtual process (virtual processor system, Col 2, Line 12), starting a separate first process (data storage, Col 2, Line 30); associating each first process with a separate virtual process identifier (process IDs, Col 2, Line 26); for each virtual process (virtual processor, Col 2, Line 12), originating additional processes (plurality of processes, Col 2, Line 27) included in the virtual process (virtual processor system, Col 2, Line 12) from the first process (data storage, Col 2, Line 30); and associating (make up, Col 2, Line 27) all processes (plurality of processes, Col 2, Line 27) that originate from each first process (data storage, Col 2, Line 30) with the associated virtual process identifier (process IDs, Col 2, Line 26).

7. Regarding dependent claim 2, Ikeda teaches each virtual process (Virtual processor system, Col 1, Line 12) comprises a virtual private server (multiprocessor system, Col 1, Line 14), the virtual private server comprising a plurality of processes (data communication, Col 1, Line 16) that together provide the functionality (data transfer, Col 1, Line 15) of a dedicated server application program (parallel processing, Col 1, Line 17).

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8. Regarding dependent claim 3, Ikeda teaches the first process comprises a system initialization process (identifying a plurality of processes, Col 2, Line 27).

9. Regarding dependent claims 4, 12 and 19, Ikeda teaches storing an entry (data, Col 2, Line 31) in a data structure (attribute, Col 2, Line 29) in computer memory (data storage, Col 2, Line 30), the entry (data, Col 2, Line 31) comprising a virtual process identifier (process IDs, Col 2, Line 26) and a process identification number (processor number, Col 2, Line 28) of the first process (data storage, Col 2, Line 30).

10. Regarding dependent claims 5, 13 and 20, Ikeda teaches intercepting (interruption, Col 1, Line 41) system calls (supervisor, Col 1, Line 41) that create processes (transfers data, Col 1, Line 44); and associating (proposed, Col 1, Line 43) a process being created (generate, Col 1, Line 40) with the virtual process identifier (process IDs, Col 2, Line 26) of a process (data transfers, Col 1, Line 36) that made the system call (queuing, Col 1, Line 35).

11. Regarding dependent claims 6, 14 and 21, Ikeda teaches storing object code (data storage, Col 2, Line 22) comprising instructions (user program, Col 2, Line 27) to associate the process (processing, Col 2, Line 23) being created (performs, Col 2, Line 23) with the virtual process identifier (process IDs, Col 2, Line 26) of the process that made the system call (performs process, Col 2, Line 23); and wherein intercepting (interruption, Col 1, Line 41) comprises replacing (transfer, Col 1, Line 46); a pointer to

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the system call (write pointer, Col 1, Line 46) with pointer to the stored object code (read pointer, Col 1, Line 47), such that calling (managed by, Col 1, Line 47) the system call (transfer request queue, Col 1, Line 46) causes the object code (user program, Col 1, Line 47) to execute (access, Col 1, Line 49).

12. Regarding dependent claim 7, Ikeda teaches storing object code comprises inserting (stored, Col 2, Line 31) the object code (data storage, Col 2, Line 30) into the operating system (virtual processor system, Col 2, Line 12).

13. Regarding dependent claims 8, 15 and 22, Ikeda teaches loading a module (data transfer request, Col 1, Line 39) into a running operating system kernel (supervisor program, Col 1, Line 41).

14. Regarding dependent claim 9, Ikeda teaches loading (calls, Col 6, Line 22) the first process (instructions, Col 6, Line 22) into computer memory (main storage, Col 6, Line 22) by a modified loader program (updates values, Col 6, Line 26); starting the first process (instruction processing, Col 6, Line 21) by the modified loader program (updates values, Col 6, Line 26); and storing, by the modified loader program (instructions, Col 6, Line 22), an entry (read, Col 6, Line 26) in a data structure in computer memory (main storage, Col 6, Line 24), the entry (receive data, Col 6, Line 1) comprising a virtual process identifier (process ID, Col 6, Line 1) and a process

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identification number (number of logical processor, Col 5, Line 67) of the first process (receiving processor specification, Col 5, Line 66).

15. Regarding dependent claim 10, Ikeda teaches starting the first process (data storage, Col 2, Line 30) by a virtual process manager program (user program, Col 2, Line 27); and storing, by the manager program (user program, Col 2, Line 27), an entry in a data structure in computer memory (data storage, Col 2, Line 22), the entry comprising a virtual process identifier (process IDs, Col 2, Line 26) and a process identification number (processor number, Col 2, Line 28) of the first process (accessing data storage, Col 2, Line 30).

16. Regarding dependent claim 11, Ikeda teaches program code (user program, Col 2, Line 27) for starting (executed, Col 2, Line 28), for each virtual process (plurality of processes, Col 2, Line 27), a separate first process (identifying, Col 2, Line 27); program code (user program, Col 2, Line 27) for associating each first process (virtual process system, Col 2, Line 12) with a separate virtual process identifier (process ID, Col 2, Line 26); program code (user program, Col 2, Line 27) for originating, from each virtual process (plurality of processes, Col 2, Line 27), additional processes (plurality of processes, Col 2, Line 27) included in the virtual process (virtual process system, Col 2, Line 12); program code (user program, Col 2, Line 27) for associating all processes (plurality of processes, Col 2, Line 27) that originate from each first process (accessing data storage, Col 2, Line 30) with the associated virtual process identifier (process ID,

Col 2, Line 26); and a computer readable medium (data storage, Col 2, Line 22) on which the program codes (user program, Col 2, Line 27) are stored.

17. Regarding dependent claim 17, Ikeda teaches program code (user program, Col 2, Line 27) for loading (execute, Col 2, Line 28) the first process (accessing data storage, Col 2, Line 29) into computer memory (data storage, Col 2, Line 30).

18. Regarding dependent claims 23, 24 and 25, Ikeda teaches starting each virtual process (virtual processor, Col 2, Line 12) by executing a separate, system initialization process (identifying, Col 2, Line 27); associating each system initialization process (identifying, Col 2, Line 27) with a virtual process identifier (process ID, Col 2, Line 26); associating all processes (data storage, Col 2, Line 30) originating from each system initialization process (system information storage, Col 2, Line 26) with the virtual process identifier (process ID, Col 2, Line 26) associated with the system initialization process; and wherein a virtual process (virtual process system, Col 2, Line 12) is comprised of a single system initialization process (system information storage, Col 2, Line 26) and all processes (plurality of processes, Col 2, Line 27) originating therefrom.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adams (U.S. Patent No. 5,889,996) discloses virtual machine, interrupted, memory, code and data. Boebert (U.S. Patent No. 5,864,683) discloses virtual unit, virtual memory, identify and intercepting. Hapner (U.S. Patent No.



5,727,203) discloses data storage, data structure, computer processes, intercept, identifier and virtual memory.

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is 703-305-8744. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-746-3506.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-6833.

Sunray Chang  
Patent Examiner  
Group Art Unit 2128  
Technology Center 2100  
U.S. Patent and Trademark Office

January 22, 2004

  
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